

# EUROPEAN PATENT OFFICE

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TITLE : PRODUCTION OF FOAM FOR CMP PAD

ABSTRACT : PROBLEM TO BE SOLVED: To obtain a foam used for a CMP pad and having excellent water resistance and consequent durability by forming a mixture comprising a crosslinking agent, a heat-decomposable blowing agent and a polyolefin resin containing an abrasive into a sheet and crosslinking and foaming this sheet.

SOLUTION: A crosslinking agent, a crosslinking aid (A), a heatdecomposable blowing agent (B), an abrasive (C) and a polyolefin resin (D) are melt-kneaded at the decomposition temperature of component B or below, and the resultant mixture is formed into a sheet, This sheet is crosslinked and foamed to form a foam for a CMP(chemical-mechanical polishing) pad. Examples of component D include polypropylene and polyethylene, An example of component A is tbutylcumyl peroxide. An example of component B is an organic type such as azodicarbonamide or an inorganic type such as sodium carbonate/citric acid mixture. The composition of a combination of component A with component B is desirably such that cell diameters of several tens $\mu$ m or below can be realized. Component C used is desirably a finely divided silicon oxide abrasive, This foam has excellent water resistance as compared with a conventional urethane foam, so that it can give a CMP pad having durability.

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